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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,408	06/05/2001	Minoru Yonezawa	P 281351 T4TY-01S0006-1	1821
909	7590	09/02/2005	EXAMINER GOMA, TAWFIK A	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			ART UNIT 2653	PAPER NUMBER

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/873,408	Applicant(s) YONEZAWA ET AL.	
	Examiner Tawfik Goma	Art Unit 2653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/03/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6-12,16,17,19,20,22,23 and 28-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,13-15,18,21 and 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Baba (US Patent 5768227).

Regarding claim 1, Baba discloses an objective lens driving apparatus comprising (fig. 3): an objective lens (7, fig. 3); an objective lens holder for holding the objective lens (3, fig. 3), the objective lens holder being supported to be movable in an optical axis direction of a light beam made incident on the objective lens and a direction perpendicular to the optical axis direction (col. 5 lines 14-18); a focusing coil for driving the objective lens holder in the optical axis direction (col. 5 lines 16-18); a tracking coil for driving the objective lens holder in the direction perpendicular to the optical axis direction (col. 5 lines 14-16); focus detection means for detecting a positioning error of the objective lens holder (31 fig. 4) in the optical axis direction (col. 6 lines 10-11); tracking detection means for detecting a positioning error of the objective lens holder (31, fig. 4) in the direction perpendicular to the optical axis direction (col. 6 lines 8-10); focus control means (col. 6 lines 29-32) for receiving a detection signal from the focus

detection means and outputting an arithmetic operation result of this detection signal (36, 32, fig. 4) to the focusing coil (40, fig. 4)); tracking control means (col. 3 lines 26-27 and fig. 23) for receiving a detection signal from the tracking detection means and outputting an arithmetic operation result (34, 36, fig. 4) of this detection signal to the tracking coil (52, fig. 23); and compensation means (38, fig. 23) for receiving at least one of output signals from the focus control means and the tracking control means, and adding an arithmetic operation result of the received signal to an output signal from the tracking control means to the tracking coil or to an output signal from the focus control means to the focusing coil (32, 53, fig. 23).

Regarding claim 2, Baba discloses everything claimed as applied above (see claim 1). Baba further discloses wherein the compensation means arithmetically processes the output signal from the tracking control means (34, 36, fig. 4) and adds the arithmetic operation result to the output signal from the focus control means to the focusing coil (38, 32, fig. 23).

Regarding claim 5, Baba discloses everything claimed as applied above (see claim 1). Baba further discloses wherein the compensation means performs arithmetic operations to provide such frequency characteristics as to pass a frequency component near a control band determined by the tracking control means and the focus control means (44, 43, 37, fig. 23).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-15, 18, 21, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Yamamoto et al (US Patent 6028826).

Regarding claim 13, Baba discloses an optical disk apparatus (figs. 3 and 4) comprising: an objective lens for converging a light beam onto an optical disk (7, fig. 3); an objective lens holder for holding the objective lens (3, fig. 3), the objective lens holder being supported to be movable in an optical axis direction of a light beam made incident on the objective lens and a direction perpendicular to the optical axis direction (col. 5 lines 14-18); a focusing coil for driving the objective lens holder in the optical axis direction(col. 5 lines 16-18); a tracking coil for driving the objective lens holder in the direction perpendicular to the optical axis direction(col. 5 lines 14-16); focus detection means for detecting a positioning error of the objective lens holder (31, fig. 4) in the optical axis direction(col. 6 lines 10-11); tracking detection means for detecting a positioning error of the objective lens holder (31, fig. 4) in the direction perpendicular to the optical axis direction (col. 6 lines 8-10); control means for arithmetically processing at least one of detection signals from the focus detection means and the tracking detection means and outputting a control signal to each of the focusing coil and the

tracking coil (col. 6 lines 24-27, and fig. 4). Baba fails to disclose determination means for temporarily restricting functions of the control means when the determination means has determined that a disturbance component is mixed in the detection signal.

In the same field of endeavor, Yamamoto et al discloses an optical disk apparatus performing correction based on a tracking error and focusing error signal. Yamamoto further discloses determination means for temporarily restricting functions of the control means when the determination means has determined that a disturbance component is mixed in the detection signal (col. 7, lines 3-8). The examiner maintains that it would have been obvious at the time of the applicant's invention to modify Baba's apparatus by providing disturbance detection that restricts the control functions as taught by Yamamoto et al. The rationale is as follows: One of ordinary skill in the art would have been motivated to provide Baba's apparatus with disturbance detection that restricts the control functions in order to have the apparatus function properly with excess vibration or a scratch on the disk.

Regarding claim 14, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 13). Baba further discloses wherein the control means comprises: focus control means for receiving a detection signal from the focus detection means (col. 6 lines 29-32) and outputting a focus control signal to the focusing coil (40, fig. 23); tracking control means for receiving a detection signal from the tracking detection means (col. 3 lines 26 and 27 and fig. 23) and outputting a tracking control signal to the tracking coil (52, fig. 23); and compensation means (38,

fig. 23) for receiving an output signal from one of the focus control means and the tracking control means, and arithmetically processing the received output signal.

Regarding claim 15, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 14). Baba further discloses wherein the compensation means arithmetically processes the tracking control signal (34, 36, fig. 4) from the tracking control means (col. 3 lines 26 and 27, and fig. 23) and adds the arithmetic operation result to the focus control signal (38, 32, fig. 23).

Regarding claim 18, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 14). Baba further discloses wherein the compensation means arithmetically processes the detection signal (34, 36, fig. 4) from the tracking detection means (31, fig. 4) and adds the arithmetic operation result to the focus control signal (38, 32, fig. 4).

Regarding claim 21, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 14). Baba further discloses wherein the compensation means performs arithmetic operations to provide such frequency characteristics as to pass a frequency component near a control band determined by the focus control means and the tracking control means (44, 43, 37, fig. 23).

Regarding claims 25 and 26, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 14). Yamamoto et al further discloses wherein the determination means temporarily restricts functions of the compensation means when the determination means has determined a tracking control error on the

basis of a disturbance component mixed in the detection signal obtained by the tracking detection means (col. 7 lines 3-6).

Regarding claim 27, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 13). Baba further discloses wherein the control means comprises: focus control means (col. 6 lines 29-32) for arithmetically processing the detection signal from the focus detection means (36, 32, fig. 4) and outputting a focus control signal to the focusing coil (40 fig. 4); tracking control means (col. 3 lines 26-27 and fig. 23) for arithmetically processing the detection signal (34, 36, fig. 4) from the tracking detection means and outputting a tracking control signal to the tracking coil (50, fig. 23); and compensation means (38, fig. 23) for receiving at least one of the detection signals from the focus detection means and the tracking detection means, and adding an arithmetic operation result of the received detection signal to a tracking error detection signal from the tracking detection means to the tracking control means or to a focus error detection signal from the focus detection means to the focus control means (32, 53, fig. 23).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baba and in view of Yamamoto et al as applied to claims 13-15, 18, 21, and 25-27 above and further in view of Moriya et al (US Patent 4807206).

Regarding claim 24, Baba in view of Yamamoto et al discloses everything claimed as applied above (see claim 13). Baba and Yamamoto et al fail to disclose wherein the determination means determines a header signal and a jump signal to be disturbance components.



In the same field of endeavor, Moriya et al discloses a track jump detection system, which detects a disturbance and stops operation upon detecting a track jump or detection of an ID region (header) (col. 9 lines 29-42). The examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Baba and Yamamoto et al by providing a header and jump detection device. The rationale is as follows: One of ordinary skill in the art would have been motivated to identify a header or a track jump as a disturbance in order to give the apparatus time to load initial data prior to controlling the focus and tracking control.

### ***Response to Arguments***

Applicant's election with traverse of Species 1 (figs. 1-3, 5 and 6) in the reply filed on May 3, 2005 is acknowledged. The traversal is on the grounds that Species I-VII are sufficiently related and that the application can be examined without burden to the examiner. This is not found persuasive because applicant has not come on record stating the Species I-VII are not patentably distinct. Accordingly, burden would be on the examiner if all species are examined all together.

Furthermore, claims 13 and 24 are not generic to all species because claim 13 includes the limitation determination means for temporarily restricting functions of the control means when the determination means has determined that a disturbance component is mixed in the detection signal. This limitation is not included in Species IV as disclosed by embodiments V and VI of the application on 8-10 of the specification. In these embodiments, describing Species IV, the determination means does **not** restrict the functions of the control means upon detection of a disturbance.

The requirement is still deemed proper and is therefore made FINAL.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takamine et al discloses a focus position and adjustment device that can detect focus positions for land and groove areas. Tateishi discloses a servo control apparatus that detects disturbance and provides feedback control for both tracking and focus detection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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8/24/05

  
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